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REISSUE APPLICATION DECLARATION BY THE INVENTOR	Docket Number (Optional)			
As a below named inventor, I horoby declare that:  My residence, mailing address and citizenship are stated below next to my name.  I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is described and claimed in patent number 5,715,270				
(If applicable)				
I have reviewed and understand the contents of the above identifies as amended by any amendment referred to above.  I acknowledge the duty to disclose information which is material to 37 CFR 1.56.  I verily boliove the original patent to be wholly or partly inoperative below. (Check all boxes that apply.)	patentability as defined in			
by reason of a defective specification or drawing.				
X by reason of the patentee claiming more or less than he had t	he right to claim in the patent.			
by reason of other errors.				
At least one error upon which reissue is based is described below, reissue, such must be stated with an explanation as to the nature of				
In U.S. Patent No. 5,715,270, Applicants erroneously, less than they were entitled to claim. For example, claim 1 of t	<del>=</del>			
1. A diode laser system, comprising: N laser head assemblies (LHAs) generating N output b includes: M modules generating M laser beams, wherein each of single wavelength; M-2 dichroic filters, wherein each of said M-2 dichroic of said M laser beams and reflects all other of said M laser beams	said M laser beams has a different filters transmits a corresponding one			

[Page 1 of 2]

Builden Hour Statement: This form is estimated to take 0.5 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer. U.S. Patent and Trademark Office, Washington, DC 20231, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO; Assistant Commissioner for Patents, Washington, DC 20231.

REISSUE APPLICATION DECLARATION BY THE INVENTOR

a fiber coupling device collecting said M laser beams to produce a respective one of said N utput beams:

N optical fibers receiving respective ones of said N output beams and generating N received N optical fi output beams; and

an optical assembly recollimating and focusing said N received output beams on a single

where N and M are both integers  $\geq 2$ .

In doing so, Applicants erroneously claimed a diode laser system including at least two laser head assemblies. However, the laser diode system to which the Applicants believe they are entitled is as recited below:

25. A diode laser system, comprising:

a laser head assembly generating an output beam, wherein the laser head assembly includes: M modules which generates M laser beams, and wherein each of said M laser beams has a different wavelength band; and

M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams into a predetermined optical path to produce said output beam; and

where M is an integer > 2.

It will be appreciated from a comparison of claims 1 of the '270 patent and claim 25 of the Reissue application, the recitation of but a single laser head assembly permits additional elements, such as the N optical fibers of claim 1 to be omitted from the claimed diode laser system.

[Page 1A of 2]

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(REISSUE APPLICATION DECLARATION BY THE INVENTOR, page 2)  Docket Number (Optional)  D-3953-RE							
All errors corrected in this reissu application arose without any deceptive intention the part of the applicant. As a named invintor, I hereby appoint the following attorn y(s) and/or agent(s) technosecute this application and transact all business in the United States Patent and Trademark Office connected therewith.							
	nsact all business		atent and Tra	adema			gitnerewith.
Name(s) Raymond H. J	. Powell, Jr.	Registration Number 34,231			DEC	2 9 2000	땅
Robert A. Wes	sterlund	31,439		cation to:			
_Ramon R. Hoch34,108				87	PADEMARIE		
Correspondence Address: Direct all communications about the application to:							
Customer Nu	ımber		-				Number Bar
Type Customer Number here Code Label here			<b>?</b> ,				
Firm or Individual Name	WESTERLUN	D POWELL, P.C.			!		
Address	122 N. Alfred	Street					
Address				<del></del>	<del></del> .	<del></del>	
City	Alexandria		State	VA		Zip	22314-3011
Country	United States			1			
Telephone	(703) 706-5862	!	Fax	(703	706-5	860	
the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.  Full name of sole or first inventor (given name, family name)							
Mark S. Zediker Inventor's signature	<u> </u>		Date				
Posidones			Citizenship				
Same as Walling Address United State			tes				
Mailing Address	4005 Wanewa	y Court, Florissan	t, MO 630	34-32	18		
Full name of second joint inventor (given name, family name)							
Robert R. Rice			γ				
Inventor's signature	<u> </u>	66	Date /	8 W.	وحسا	<u>an 20</u>	oυ
Residence Same as Mailing Address Citizensh			Citizenship	<sup>ip</sup> United States			
Mailing Address 14736 Greenleaf Valley Drive, Chesterfield MO, 63017							
Full name of third joint inventor (given name, family name)							
John M. Haake							
Inventor's signature			Date				
	as Mailing Ad	Idress	Citizenship	Unit	ed Sta	tes	
Mailing Address 5 Gurn Tree Place, St. Charles, MO, 63301-1296							
Additional joint inventors are named on separately numbered sheets attached hereto.							

[Fage 2 of 2]

DEC-16 00 00:01 FROM: TO: 703 783 8458 PAGE:04

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IJ

Docket Number (Optional) REISSUE APPLICATION DECLARATION BY THE INVENTOR DEC 2 9 2000 As a below named inventor, I hereby declare that: My residence, mailing address and citizenship are stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or joint inventor (if plural names are listed below) of the subject matter which is described and \_\_\_\_,granted \_\_\_\_\_02/03/1998 and for which a in patent number \_\_\_\_\_5,715,270 reissue patent is sought on the invention entitled HIGH EFFICIENCY, HIGH POWER DIRECT DIODE LASER SYSTEMS AND METHODS THEREFOR the specification of which is attached hereto. \_\_as reissue application number \_\_\_09/ 498,254 02/03/2000 was filed on \_\_ and was amended on \_\_\_\_ (If applicable) I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56. I vorily believe the original patent to be wholly or partly inoperative or invalid, for the reasons described below. (Check all boxes that apply.) by reason of a defective specification or drawing. [X] by reason of the patentee claiming more or less than he had the right to claim in the patent. by reason of other errors. At least one error upon which reissue is based is described below. If the reissue is a broadening reissue, such must be stated with an explanation as to the nature of the broadening: In U.S. Patent No. 5,715,270, Applicants erroneously, and without deceptive intent, claimed less than they were entitled to claim. For example, claim 1 of the '270 patent recited: 1. A diode laser system, comprising: N laser head assemblies (LHAs) generating N output beams, wherein each of said N LHAs M modules generating M laser beams, wherein each of said M laser beams has a different single wavelength; M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams;

[Page 1 of 2]

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(REISSUE APPLICATION DECLARATION BY THE INVENTOR, page 2)  D-3953-RE						
L applicant As a gar	d in this reissu—application arose wit med inventor, I hereby appoint the follo nsact all business in the United States P	wing attorne	ev(s) ar	nd/or age	ent(s) to	prosecute this
Name(s)	Registration Number					
Raymono rus	<u>Powell, Jr. 34,231</u> sterlund 31.439					
	Robert A. Westerlund 31,439 34,108					
Correspondence A	ddress; Direct all communications about	the applicat	ion to:			
1 '						
Customer Number  Type Customer Number here			Code Label here			
Firm or Individual Name	WESTERLUND POWELL, P.C.	,				
Address	122 N. Alfred Street					
Address			1,,,			22314-3011
City	Alexandria	State	VA		Zip	22314-3011
Country	United States		1			
Telephone	(703) 706-5862 nat all statements made herein of my of	Fax		706-5		
the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.  Full name of sole or first inventor (given name, family name)						
Inventor's signature Date 12/20/00						
Residence Same	as Mailing Address	Citizenship	<u>Uni</u>	ted Sta	ites	
Mailing Address	Carre as marring Machan					
Full name of secon	d joint inventor (given name, family nam			_,	<del>_</del>	
Robert R. Rice						
Inventor's signature		Date		_		
Residence Same as Mailing Address		Citizenship United States				
Mailing Address 14736 Greenleaf Valley Drive, Chesterfield MO, 63017						
Full name of third joint inventor (given name, family name)						
John M. Haake						
inventor's signature	Shuk Hoshi	Date (2	<u> 2/2</u>	0/0	0	···
Residence Sam	as Mailing Address	Citizenship	Unit	ted Sta	t s	
Mailing Address 5 Gum Tree Place, St. Charles, MO, 63301-1296						
Additional injections are named on separately numbered sheets attached hereto.						

[Page 2 of 2]



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## REISSUE APPLICATION DECLARATION BY THE INVENTOR

Docket Number (Optional)
D-3953-RE

a fiber coupling device collecting said M laser beams to produce a respective one of said N output beams;

N optical fibers receiving respective ones of said N output beams and generating N received output beams; and

an optical assembly recollimating and focusing said N received output beams on a single spot,

where N and M are both integers ≥ 2.

In doing so, Applicants erroneously claimed a diode laser system including at least two laser head assemblies. However, the laser diode system to which the Applicants believe they are entitled is as recited below:

25. A diode laser system, comprising:

a laser head assembly generating an output beam, wherein the laser head assembly includes:
M modules which generates M laser beams, and wherein each of said M laser beams has a
different wavelength band; and

M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams into a predetermined optical path to produce said output beam; and

where M is an integer 2.2.

It will be appreciated from a comparison of claims 1 of the '270 patent and claim 25 of the Reissue application, the recitation of but a single laser head assembly permits additional elements, such as the N optical fibers of claim 1 to be omitted from the claimed diode laser system.

[Page 1**A** of 2]

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REISSUE APPLICATION DECLARATION BY	Y THE ASSIGNEE D-3953 RE I P			
I hereby declare that:	Kill			
My residence and mailing address and citizenship are s	tated below next to my name.			
I am authorized to act on behalf of the following assigne				
and the title of my position with said assignee is:	ef Counsel			
The entire title to the patent identified below is vested in	said assignee.			
Name of Patentee(s):				
Mark S. Zediker, Robert R. Rice, and John M	I. Haake			
Patont Numbor  Date of Patent Issued				
5,715,270	02/03/1998			
Title of Invention High Efficiency, High Power Direct Doide Laser	Systems and Methods Therefor			
I believe said patentee(s) to be the original, first and sol	e/joint inventor(s) of the subject matter which is			
described and claimed in said patent, for which a reissu  High Efficiency, High Power Direct Doide Lase				
High Efficiency, High Power Direct Doide Laser Systems and Methods Therefor				
the specification of which				
is attached hereto.				
was filed on				
(If applicable)				
I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.				
I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.				
I verily believe the original patent to be wholly or partly inoperative or invalid, for the reasons described below. (Check all boxes that apply.)				
by reason of a defective specification or drawing.				
by reason of the patentee claiming more or less than he had the right to claim in the patent.				
by reason of other errors.				
At least one error upon which reissue is based is described as follows:				
See Attached Sheet				
[Attach additional sheets, if needed.]				
All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant.				

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## REISSUE APPLICATION DECLARATION BY THE ASSIGNEE

Docket Number (optional)

D-3953-R

In U.S. Patent No. 5,715,270, Applicants erroneously, and without deceptive intent, claimed less than they were entitled to claim. For example, claim 1 of the '270 patent recited: net 2 9 2000

1. A diode laser system, comprising:

N laser head assemblies (LHAs) generating N output beams, wherein each of said MADEN includes:

M modules generating M laser beams, wherein each of said M laser beams has a different single wavelength;

M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams;

a fiber coupling device collecting said M laser beams to produce a respective one of said N output beams;

N optical fibers receiving respective ones of said N output beams and generating N received output beams; and

an optical assembly recollimating and focusing said N received output beams on a single spot,

where N and M are both integers  $\geq 2$ .

In doing so, Applicants erroneously claimed a diode laser system including at least two laser head assemblies. However, the laser diode system to which the Applicants believe they are entitled is as recited below:

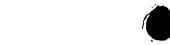
25. A diode laser system, comprising:

a laser head assembly generating an output beam, wherein the laser head assembly includes:
M modules which generates M laser beams, and wherein each of said M laser beams has a different wavelength band; and

M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams into a predetermined optical path to produce said output beam; and

where M is an integer  $\geq 2$ .

It will be appreciated from a comparison of claims 1 of the '270 patent and claim 25 of the Reissue application, the recitation of but a single laser head assembly permits additional elements, such as the N optical fibers of claim 1 to be omitted from the claimed diode laser system.



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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number Docket Number (Optional) REISSUE APPLICATION DECLARATION BY THE ASSIGNEE D-3953-DE I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and all business in the United States Patent and Trademark Office connected tylerewith. DEC 2 9 2000 Registration Number Name(s) 34,231 Raymond H. J. Powell, Jr. Robert A. Westerlund 31,439 34,108 Ramon R. Hoch Correspondence Address: Direct all communications about the application to: **Customer Number** Place Customer Number Bar Code Label Here Type Customer Number Here OR Firm or X Individual WESTERLUND POWELL, P.C. Name Address 122 N. Alfred Street Address City State **VA** Zip 22314-3011 Alexandria **United States** Country (703) 706-5860 Fax Telephone (703) 706-5862 I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed. Full name of person signing (given name, family name) Richard J. Wickham, Chief Counsel Date / 2 / 2 0 / 2000 Signature Address of Assigned P O Box 516, St. Louis, MO, 63166-0516 Citizenship **Patentee United States** Mark S. Zediker Residence/Mailing Address 315 Merlin Drive, St. Charles MO 63304 Citizenship **Patentee United States** Robert R. Rice Residence/Mailing Address 14736 Gre nleaf Vall y Driv , Chesterfield, MO, 63017 X Additional Patentees are named on separately numbered sheets attached hereto.







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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number Docket Number (Optional) REISSUE APPLICATION DECLARATION BY THE ASSIGNEE D-3953-RE Citizenship **Patentee** John M. Haake **United States** Residence/Mailing Address 5 Gum Tree Place, St. Charles, M **Patentee** Citizenship Residence/Mailing Address **Patentee** Citizenship Residence/Mailing Address **Patentee** Citizenship Residence/Mailing Address **Patentee** Citizenship Residence/Mailing Address Patentee Citizenship Residence/Mailing Address Citizenship **Patentee** Residence/Mailing Address **Patentee** Citizenship Residence/Mailing Address Citizenship **Patentee** Residence/Mailing Address Citizenship **Patentee** Residence/Mailing Address Additional Patentees are named on separately numbered sheets attached hereto.

PTO/SB/96 (08-00)

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STATEMENT UNDER 37 CFR 3.73(b)				
Applicant/Patent Owner: McDonnell Douglas Corporation				
Application No./Patent No.: 5,715,270 Filed/Issue Date: February 3, 1998				
Entitled: High Efficiency, High Power Direct Dio				
McDonnell Douglas Corporation , a P O Box	516, St. Louism MO, 63166-0516			
(Name of Assignee) (Type of Ass	signee, e.g., corporation, partnership, university, government agency, etc.)			
states that it is:	OIPE			
1. X the assignee of the entire right, title, and interest; or				
2.   an assignee of less than the entire right, title and interest.  The extent (by, percentage) of its ownership interest is%				
in the patent application/patent identified above by virtue	est is% e of either:			
A. <b>K</b> ] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 8368, Frame 0083, or for which a copy thereof is attached.				
OR				
B. [ ] A chain of title from the inventor(s), of the patent assignee as shown below:	application/patent identified above, to the current			
1. From:	Го:			
The document was recorded in the United S	States Patent and Trademark Office at, or for which a copy thereof is attached.			
2. From:I				
	, or for which a copy thereof is attached.			
3. From:T	o:			
The document was recorded in the United S	States Patent and Trademark Office at, or for which a copy thereof is attached.			
[ ] Additional documents in the chain of title are listed on a supplemental sheet.				
[ ] Copies of assignments or other documents in the cha [NOTE: A separate copy (i.e., the original assignment must be submitted to Assignment Division in accordance recorded in the records of the USPTO. <u>See MPEP 38</u>	nt document or a true copy of the original document) ance with 37 CFR Part 3, if the assignment is to be			
The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.				
12/20/2000	Richard J. Wickham			
7 /Date	Reclar Willeshiam			
	Signature Chief Counsel			
	Title			

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